

Amendments To The Claims:

Claim 1. (Previously Presented) An injection catheter comprising:

 a first elongated shaft having a distal end and a proximal end and a first lumen extending therebetween;

 a needle with a proximal end and distal end and a needle lumen extending therebetween, the needle disposed within the first lumen of the first elongated shaft and extending from a proximal end of the catheter to a distal end of the catheter;

 a stop collar disposed within the first lumen of the first elongated shaft near the distal end of the needle; the stop collar having a portion thereon configured to prevent lateral movement of the stop collar within the first elongated shaft;

 a first set of threads located on the needle; and

 a second set of threads located on the stop collar;

 wherein rotation of the needle within the first elongated shaft causes longitudinal movement of the stop collar relative to the needle within the first elongated shaft, the positioning of the stop collar within the first elongated shaft controlling a variable extent to which the needle may be extended beyond the distal end of the first elongated shaft.

Claim 2. (Canceled)

Claim 3. (Canceled)

Claim 4. (Previously Presented) The injection catheter of claim 1, wherein the portion of the stop collar configured to prevent lateral movement comprises:

 a plurality of outwardly extending longitudinal protrusions located on the stop collar; and

 a plurality of grooves in an inner surface of the first elongated shaft to slidably receive the plurality of outwardly extending longitudinal protrusions.

Claims 5-12. (Canceled)

Claim 13. (Previously presented) The injection catheter of claim 1 wherein the first elongated

shaft is made of a low friction material.

Claim 14. (Previously presented) The injection catheter of claim 1 wherein the first elongated shaft comprises polytetrafluoroethylene.

Claims 15-16. (Canceled)

Claim 17. (Previously presented) The injection catheter of claim 1 wherein the first elongated shaft is reinforced with a braid.

Claims 18-20. (Canceled)

Claim 21. (New) An injection catheter comprising:

- a first elongated shaft having a distal end and a proximal end and a first lumen extending therebetween;

- a needle with a proximal end and distal end and a needle lumen extending therebetween, the needle disposed within the first lumen of the first elongated shaft and extending from a proximal end of the catheter to a distal end of the catheter;

- a stop collar disposed within the first lumen of the first elongated shaft near the distal end of the needle; the stop collar being longitudinally slidable and rotationally fixed within the first elongated shaft;

- a first set of threads located on the needle; and

- a second set of threads located on the stop collar;

wherein rotation of the needle within the first elongated shaft causes longitudinal movement of the stop collar relative to the needle within the first elongated shaft, the positioning of the stop collar within the first elongated shaft controlling a variable extent to which the needle may be extended beyond the distal end of the first elongated shaft.

Claim 22. (New) The injection catheter of claim 21 further comprising:

- a plurality of outwardly extending longitudinal protrusions located on the stop collar; and

a plurality of grooves in an inner surface of the first elongated shaft to slidingly receive the plurality of outwardly extending longitudinal protrusions.